

Appln. No. 09/903,813
Applicants: S. Klein et al.

CL
Conclude
heterocyclyl, substituted heterocyclyl, heterocyclylalkyl, substituted heterocyclylalkyl, and
NR¹R², wherein R¹ and R² are independently selected from the group consisting of H, alkyl,
cycloalkyl, cycloalkylalkyl, alkylcycloalkyl, alkylcycloalkylalkyl, aryl, aralkyl, alkylaralkyl,
and said heterocyclyl is further selected from the group consisting of pyridyl, pyrimidyl and
pyrrolidyl;

p is 1 to 4, P₂ is a carboxylic acid protecting group; and P₃ is an amino protecting
group.

REMARKS

Reconsideration of the present application in view of the foregoing amendment and
following remarks is requested respectfully.

I. STATUS OF CLAIMS

Claims 20 and 21 are presented. No claims have been added, claim 20 has been
amended, and claims 22 and 23 are cancelled without prejudice. The amendment to claim 20
consists in the deletion of OR¹ from the group defining the substituent variable G' in
accordance with the election of subgenera 2 as defined in the Office Action mailed February
19, 2002.

II. CLAIMS 20 AND 21 DEFINE PATENTABLE SUBJECT MATTER

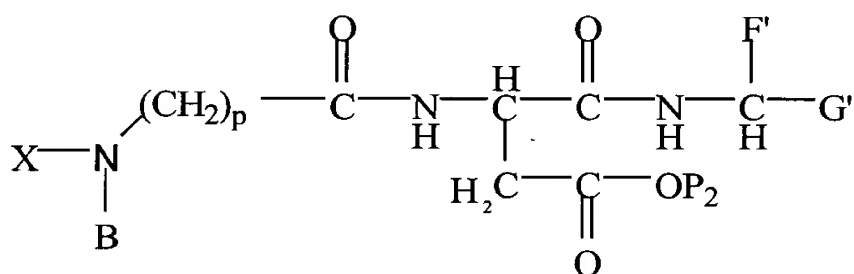
A. Summary of the Invention

The present invention is directed to compounds having antithrombotic activity. More

Appln. No. 09/903,813
 Applicants: S. Klein et al.

specifically, the invention relates to azacycloalkylalkanoyl peptides and pseudopeptides that inhibit platelet aggregation and thrombus formation in mammals and which are useful in the prevention and treatment of thrombosis.

The claimed compounds of the present invention are described by the following formula:



wherein:

X is H or P₃;

B is selected from the group consisting of alkyl, cycloalkyl, cycloalkylalkyl, alkylcycloalkyl, alkylcycloalkylalkyl, aryl, aralkyl, alkylaryl, or alkylaralkyl;

F' is selected from the group consisting of -H, alkyl, hydroxymethyl, 1-hydroxymethyl, mercaptomethyl, 2-methylthioethyl, carboxymethyl, 2-carboxyethyl, aminocarbonylmethyl, 2-aminocarbonyl ethyl, 4-aminobutyl, 3-aminopropyl, 3-guanidinopropyl, indol-3-ylmethyl, imidazol-3-ylmethyl, cycloalkyl, cycloalkylalkyl, cyclohexylcyclohexylmethyl, 1,2,3,4-tetrahydronaphth-5-ylmethyl, alkylcycloalkyl,

Appln. No. 09/903,813
Applicants: S. Klein et al.

alkylcycloalkylalkyl, aryl, substituted aryl, aralkyl, substituted aralkyl, heterocyclyl, substituted heterocyclyl, heterocyclylalkyl, substituted heterocyclylalkyl, wherein said heterocyclyl is further selected from the group consisting of pyridyl, pyrimidyl and pyrrolidyl;

G' is selected from the group consisting of alkyl, cycloalkyl, cycloalkylalkyl, alkylcycloalkyl, alkylcycloalkylalkyl, aryl, substituted aryl, aralkyl, substituted aralkyl, heterocyclyl, substituted heterocyclyl, heterocyclylalkyl, substituted heterocyclylalkyl, and NR^1R^2 , wherein R^1 and R^2 are independently selected from the group consisting of H, alkyl, cycloalkyl, cycloalkylalkyl, alkylcycloalkyl, alkylcycloalkylalkyl, aryl, aralkyl, alkylaralkyl, and said heterocyclyl is further selected from the group consisting of pyridyl, pyrimidyl and pyrrolidyl;

p is 1 to 4, P_2 is a carboxylic acid protecting group; and P_3 is an amino protecting group.

B. The § 102 Rejection

Claims 20 and 21 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,399,570 issued to Klinger et al. (the "Klinger patent"). This rejection is traversed respectfully.

As set forth in the Office Action, the sole basis for the rejection of the pending claims is the asserted disclosure in the Klinger patent of Sar-Asp(OBz)-3,3-diphenylpropylamide which is then compared to the claimed compound with the variables thereof selected such that F' is hydrogen, G' is a substituted aralkyl, B is methyl, and X is hydrogen. There is no other basis for the rejection.

Appln. No. 09/903,813
Applicants: S. Klein et al.

The defect of the rejection based on the Klinger patent stems from the erroneous characterization of the disclosure in the Klinger patent. Contrary to the description of the disclosed compound contained in the Office Action, the compound disclosed in the Klinger patent is described as H₂N-Sar-Asp(OBz)-3,3-diphenylpropylamide. See Klinger patent at column 13, lines 58-59. As such, this compound differs from the claimed compounds by the addition of a NH₂ linking group. The law on this point is clear: anticipation may be found only if a reference shows *exactly* what is claimed. See *Titanium Metals Corp. v. Banner*, 778 F.2d 775 (Fed. Cir. 1985). This additional moiety in the compound disclosed in the Klinger patent is a difference in structure and chemistry such that the disclosed compound does not show exactly what is claimed. As a result, a rejection under 35 U.S.C. § 102(b) based on the Klinger patent is improper. Furthermore, in view of this difference resulting from the additional amino group, a rejection under 35 U.S.C. § 103(a) would be equally unwarranted. Accordingly, applicants request respectfully that the outstanding rejection of claims 20 and 21 of the pending application be withdrawn.

III. CONCLUSION

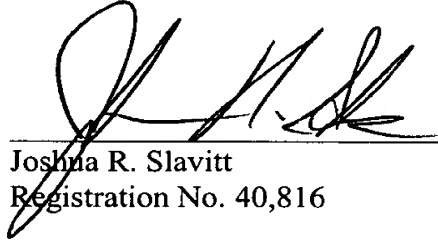
In view of the foregoing remarks, favorable reconsideration and prompt Notice of Allowance of all of the pending claims are requested respectfully.

Should the Examiner continue to have any doubts as to the allowability of any of the claims, she is requested respectfully to telephone the applicant's undersigned attorney to

Appln. No. 09/903,813
Applicants: S. Klein et al.

discuss same before issuing further action, as it is believed such discussion would help to expedite the prosecution of this application.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'J. Slavitt', is written over a horizontal line.

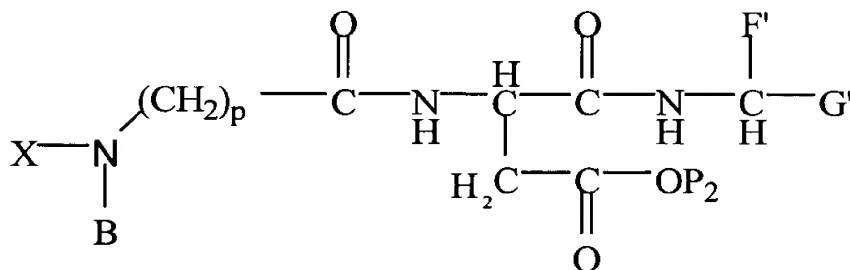
Joshua R. Slavitt
Registration No. 40,816

SYNNESTVEDT & LECHNER LLP
2600 Aramark Tower
1101 Market Street
Philadelphia, PA 19107-2950
Telephone: (215) 923-4466

M:\JSlavitt\Aventis\ReplyOA

VERSION WITH MARKINGS TO SHOW CHANGES MADE

20. (Amended) A compound having the formula:



wherein X is H or P₃;

B is selected from the group consisting of alkyl, cycloalkyl, cycloalkylalkyl, alkylcycloalkyl, alkylcycloalkylalkyl, aryl, aralkyl, alkylaryl, or alkylaralkyl;

F' is selected from the group consisting of -H, alkyl, hydroxymethyl, 1-hydroxymethyl, mercaptomethyl, 2-methylthioethyl, carboxymethyl, 2-carboxyethyl, aminocarbonylmethyl, 2-aminocarbonyl ethyl, 4-aminobutyl, 3-aminopropyl, 3-guanidinopropyl, indol-3-ylmethyl, imidazol-3-ylmethyl, cycloalkyl, cycloalkylalkyl, cyclohexylcyclohexylmethyl, 1,2,3,4-tetrahydronaphth-5-ylmethyl, alkylcycloalkyl, alkylcycloalkylalkyl, aryl, substituted aryl, aralkyl, substituted aralkyl, heterocyclyl, substituted heterocyclyl, heterocyclylalkyl, substituted heterocyclylalkyl, wherein said heterocyclyl is further selected from the group consisting of pyridyl, pyrimidyl and pyrrolidyl;

G' is selected from the group consisting of alkyl, cycloalkyl, cycloalkylalkyl, alkylcycloalkyl, alkylcycloalkylalkyl, aryl, substituted aryl, aralkyl, substituted aralkyl, heterocyclyl, substituted heterocyclyl, heterocyclylalkyl, substituted heterocyclylalkyl, [OR¹] and NR¹R², wherein R¹ and R² are independently selected from the group consisting of H, alkyl, cycloalkyl, cycloalkylalkyl, alkylcycloalkyl, alkylcycloalkylalkyl, aryl, aralkyl, alkylaralkyl, and said heterocyclyl is further selected from the group consisting of pyridyl, pyrimidyl and pyrrolidyl;

Appln. No. 09/903,813
Applicants: S. Klein et al.

p is 1 to 4, P_2 is a carboxylic acid protecting group; and P_3 is an amino protecting group.